



On the Bayou

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Message from the Director

Dr. Deepak Bhatnagar

Welcome back after the holidays, and a very happy new year to everyone.

First order of business in the new year is to complete our first quarter reviews. Please make sure you read your performance plans carefully so that there are no surprises at the end of the year.

Our budget was approved for the rest of this fiscal year, and includes a 2.6% salary increase. The down side of this is that we have that much less to spend on our research program. However, raises are important to help keep pace with the cost of living escalations.

Our Area safety inspection is coming up in early February, and we have to get ready for it. The Area safety staff have established high expectation from us.

We have had a couple of retirements this year, Les Scharfenstein of FFS and Elena Graves of CCU, after a long tenure at SRRC. In their time here, they contributed to SRRC in many positive ways, and their shoes will be difficult to fill. We wish them well in retirement.

Finally, we will have an ALL STAFF Meeting on Jan 23rd at 10 am in the Bayou Conference Room. Do mark your calendars, and begin to think about any questions you may have for me or the management team, along with any suggestions.

Let me know how I can help as we move forward into this new year. Best wishes and I hope we have a very productive year for everyone at SRRC.

SRRC Annual Holiday Party

Submitted by: Scott Pelitire

The Employee Advisory Council hosted the annual Holiday Party in the Bayou Conference Room on December 12, 2019. There was a nice selection of food items such as Boston Butt sliders, turkey breast, sweet potato casserole, green beans, hors d'oeuvres, and pie. For entertainment, festive music was played in the background and a screening of the holiday classic film, Elf, was on the big screen. The conference room was beautifully decorated for the season. Several retirees attended and over 80 staff members came together to enjoy the food and comradery. We hope everyone enjoyed this annual event where we get to gather our work family together to celebrate the start of the holiday season.



Scientific Presentations Series features Cotton Chemistry Utilization Research Unit

The second installment of our Scientific Presentations Series was held on December 13, 2019. The Series gives us an opportunity to learn about the great work being done by our colleagues at the Center, and to facilitate collaboration and open communication.

The work of the Cotton Chemistry Utilization Research Unit was featured in the month of December. Dr. Brian Condon, CCU's Research Leader began by providing an overview of the Research Unit's work and research programs, along with an introduction to the cotton industry and issues that CCU is trying to address.

Our featured speaker, Dr. Vince Edwards then talked about the cotton industry and his cotton wound healing research, which has led to the commercial development of new bandage products.

Vince received his Ph.D. in Bio-Organic Chemistry from the University of Louisville in 1984. He has worked in government, industry, and academic environments, including 26 years at SRRC as a Research Chemist and Lead Scientist. Previously he worked in areas of pharmaceutical peptides and non-viral gene therapy, and currently on cotton-based skin-contacting materials R&D. His most recent awards are the 2019 USDA ARS National Award for Technology Transfer and the 2019 REE Under Secretary's Award for: "Development of a cotton-based wound dressing resulting in a commercial product used for battlefield and emergency response applications to trauma".

Dr. Edwards' presentation was titled: Some A B C's on Design and Preparation of Cotton-Based Dressings for Hemostasis.



Scientific Recognition

SRRC is Leading the Way in Aflatoxin Research

Submitted by: Dr. K. Rajasekaran

Aflatoxin contamination of food and feed crops is a major agronomic/health problem around the world, especially in developing countries in the tropical zone. Health hazards due to consumption of infected crop products by humans and livestock include stunted growth in children, immunosuppression leading to decreased resistance to HIV or tuberculosis and liver and kidney cancer. Aflatoxins also pose a significant economic burden to farmers, causing an estimated 25% or more of the world's food crops to be destroyed annually. Recognizing the importance of this malaise, several countries are conducting research to alleviate *Aspergillus* fungal infection that results in aflatoxin contamination. In this regard, a recent bibliometric paper on aflatoxin research that appeared in the "Journal of Occupational Medicine and Toxicology" [Zyoud, S.H. 2019. Global scientific trends on aflatoxin research during 1998–2017: a bibliometric and visualized study] has highlighted the following:

- ◆ The USA is the top publishing source in the world (22.85%)
- ◆ USDA-ARS, including Food and Feed Safety Research Unit, SRRC published the highest number of papers on aflatoxin with 1190 documents and covered 12.1% of the total literature.
- ◆ ARS/SRRC is listed as the most productive organization leading the way in research publications, and international collaborations (with CIMMYT, Mexico; IITA, Ibadan, Nigeria; ICRI-SAT, Hyderabad, India, Chinese Academy, Beijing, China; and several European, South American, African, and Asian Countries).
- ◆ Our own Center Director, previously with the FFSRU, Dr. Deepak Bhatnagar has been mentioned as the most active author with 118 publications in 1998-2017 time frame.

As you can see, the aflatoxin world knows the key contributions by ARS, and particularly SRRC (including our worksite in Arizona). What is significant about this recent article is that now the rest of the scientific and commodity world will be aware of SRRC contributions. Thanks to the continued support from ONP and our Area Office, FFSRU continues to make great strides in aflatoxin research.



Submitted by: Shannon Beltz

Now is the time to get ready for our Area Inspection with Shelia Parker and Darryl Williamson, **February 5-6, 2020**. Please use the checklist I (Janell) sent out via e-mail on January 2. I will be walking through all of the labs and workspaces to double check, and answer any questions you may have.

There are some trends I have noticed thus far, please check these items:

- All contact numbers on door signage and hazardous waste storage need to be emergency contact numbers, like a cell or home phone. It should not be your desk number. I can send you a new door sign or SAA Contact sign if needed, and they are also available on the Intranet under Safety.
- Make sure you have a current Chemical Inventory (not older than 2019), you can print it from this link: <http://nola.srrc.usda.gov:8000/safety/Quantity.xls>. After opening the spreadsheet, select the drop down button on the Location column. Uncheck Select All. Select your location and print your list.
- Please tidy up! Remove boxes and clutter and put things away in drawers and cabinets instead of leaving them out on the bench. Take down old signage and remove old Safety Manuals and documentation that are no longer relevant.
- If you would like a binder to hold all of your Safety papers, please just let me know, I will provide you one ☺

Thanks very much in advance for your help, I very much appreciate it.

Do you have cabinet doors in your lab fixtures that do not close? Do you have sliding doors that don't slide? Please report these sorts of items to the **FRONT DESK (ext 0)** for repair.

Scientific Meetings

Submitted by: Terri von Hoven

January 2020 Scientific Conferences	City	Date
National Cotton Council Beltwide Conference	Austin, TX	Jan 8-10
International Joint Conference on Materials Science and Mechanical Engineering	Athens, Greece	Jan 10-12
International Conference on Agriculture, Forestry, Biotechnology and Food Science	New Delhi, India	Jan 12
Plant and Animal Genome Conference	San Diego, CA	Jan 11-15
International Conference on Science, Engineering & Technology	Los Angeles, CA	Jan 18
International Conference on Chemical and Biochemical Engineering	Champions Square, NOLA	Jan 18-19

Mr. Leslie Scharfenstein (Les) Retires

Submitted by: K. Rajasekaran and PK Chang

Mr. Leslie Scharfenstein (Les) retired on January 3, 2020 after 37 years of dedicated service with USDA-Agricultural Research Service. He joined ARS immediately after his graduation in 1982 from Louisiana College with a BS degree in Pre-Med/Biology. His entire career has been with SRRC's Food and Feed Safety Research Unit as a support scientist. Les first worked with Dr. Maren Klich for 15 years studying mycoflora dynamics in the cotton plant and in the soil. His assignment also included curating many important fungi deposited at the SRRC Culture Collection and growing cotton in the greenhouse to identify conditions conducive to *Aspergillus* infection.



He later joined Dr. Paul Engel from 1995 to 1999 and conducted molecular studies on *Streptomyces tendae* to elucidate the genetic mechanism of nikkomycin biosynthesis. He successfully isolated Nik-strains via transposon-mediated mutagenesis and characterized the associated genetic defects.

After Dr. Engel's retirement, Les joined Dr. Perng-Kuang Chang's lab. His great contributions to Dr. Chang's research program were in four important areas: molecular characterization of aflatoxin biosynthesis and regulation, population diversity of *Aspergillus flavus*, biocontrol, and omics (genomics/transcriptomics). His contributions as a co-author has resulted in 21 refereed journal articles and numerous meeting abstracts. In addition to his meticulous work and key contributions to FFSRU research, Les has been exemplary in service to his Unit as a purchase card holder, caretaker of the FFS supply room, and as a skilled photographer. In addition, he was an avid and helpful mentor to several part-time and summer students. Above all, everyone at SRRC will always remember his gentle demeanor and big smile.

Ms. Elena Graves Retires

Submitted by: Vince Edwards, Jade Smith, and Terri Von Hoven

Ms. Elena Graves, Support Scientist in Cotton Chemistry Research Unit, retired on Friday, January 3. Elena began her career at SRRC in 1980, completing 40 years of service. She worked in several research units, in areas of food and feed safety and cotton utilization research. The AATCC technical research paper competition was one of her favorite activities. Her most recent work involved examining the bleeding control properties of cotton, which earned her an SRRC Outstanding Support Scientist award and a group Technology Transfer award.



Elena maintained a very active role in SRRC committees throughout the years, especially Cultural Diversity Day, Intranet and EBC leadership. She expressed that she will miss friends and co-workers, but looks forward to spending more time planning for cruise adventures.

A group of CCU co-workers and friends wished Elena bon voyage, and celebrated her 40 years of service with cake, card, gift and collage of SRRC coworkers during her time at the Center.

Health Assessment for 2020

Remember you can sign in on your Health Carrier's website and complete the Health Assessment for 2020. Completion of the yearly health risk assessment for GEHA is \$75 Health Rewards on a prepaid MasterCard. You can complete other portal classes such as weight management, smoking cessation and tracking fitness activities for an additional \$100.

If you have Blue Cross, The Blue Health Assessment takes just ten minutes to complete and you'll receive a personalized action plan. Plus, eligible Standard and Basic Option members may earn \$50 on their MyBlue® Wellness Card for completing the BHA. You may also be eligible to earn an additional \$120 for completing up to three Online Health Coach goals related to nutrition, weight management, exercise, stress management, emotional health—and managing certain chronic illnesses.

These funds can be used for qualified medical expenses such as copayments, prescriptions and lab fees. Assessments can be done for any person over 18 on your plan.

All Staff Meeting

We will have our first 2020 staff meeting on January 23 at 10:00 am in the Bayou Conference Room.

New Orleans Area Events

Submitted by: Terri Von Hoven

January 2020 New Orleans Area Festivals	City	Date
<u>Louisiana Fur & Wildlife Festival</u>	Cameron, LA	Jan 9-11
LSU vs Clemson, College Football National Championship	Superdome, NOLA	Jan 13
<u>Danny Barker Banjo and Guitar Festival</u>	Ellis Marsalis Center for Music, NOLA	Jan 15-19
<u>King Cake Festival</u>	Champions Square, NOLA	Jan 26

Recent SRRC Publications

Submitted by: Suhad Wojkowski

Full text pdfs of SRRC publications are available in the Eprints database via “Library” link on the SRRC Intranet page: <http://nola.srrc.usda.gov:8000/srrcmenf.htm>

Click on the article's title below to launch the pdf from Eprints.

Eggleston, Gillian and Schudmak, C. and Hullett, Roddy and Waguespack, Jr., Herman and Birkett, Harold and Gay, J. and Landry, Al and Lima, Isabel M. and St. Cyr, Eldwin and Stein, Jeanie and Finger, Atticus (2019) [*First Year Operation of a Mechanical Detrasher System at a Louisiana Sugarcane Factory.*](#) In: Proceedings of the Advances in Sugar Crop Processing and Conversion 2018 Conference, May 15-18, 2018, New Orleans, Louisiana.

Eggleston, Gillian and Stewart, David and Montes, Belisario and Triplett, Alexa and St. Cyr, Eldwin and Boone, Stephanie (2019) [*Evaluation of Hydrogen Peroxide as a Decolorizer in Upstream Juice Products at a Sugarcane Factory.*](#) In: Proceedings of the Advances in Sugar Crop Processing and Conversion 2018 Conference, May 15-18, 2018, New Orleans, Louisiana.

Eggleston, Gillian and Triplett, Alexa (2019) [*The Nature of Floc Problems in Alcoholic Beverages Sweetened with Cane Sugars and How to Remove Them.*](#) In: Proceedings of the Advances in Sugar Crop Processing and Conversion 2018 Conference, May 15-18, 2018, New Orleans, Louisiana.

He, Zhongqi and Cheng, H.N. and Klasson, K. Thomas and Ford, Catrina and Barroso, Vladimir A.B. (2019) [*Optimization and Practical Application of Cottonseed Meal-Based Wood Adhesive Formulations for Small Wood Item Bonding.*](#) International Journal of Adhesion & Adhesives, 98 (102448). pp. 1-6.

Liu, Shasha and He, Zhongqi and Tang, Zhi and Liu, Leizhen and Hou, Junwen and Li, Tingting and Zhang, Yahe and Shi, Quan and Giesy, John P. and Wu, Fengchang (2020) [*Linking the Molecular Composition of Autochthonous Dissolved Organic Matter to Source Identification for Freshwater Lake Ecosystems by Combination of Optical Spectroscopy and FT-ICR-MS Analysis.*](#) Science of the Total Environment, 703 (134764). pp. 1-10.

Uchimiya, Minori and Knoll, Joseph E. (2019) [*Accumulation of Carboxylate and Aromatic Fluorophores by a Pest-Resistant Sweet Sorghum \[Sorghum bicolor \(L.\) Moench\] Genotype.*](#) ACS Omega, 4. pp. 20519-20529.